





United States Department of Agriculture
Cooperative State Research, Education, and Extension Service
CSREES Plant Sciences

Plant Sciences UPDATE

September 2005

Summer Issue

IN THIS ISSUE

The mission of CSREES is to advance knowledge for agriculture, the environment, human health and well-being, and communities.

www.csrees.usda.gov

LEAD STORIES

ASA Applauds USDA Coordinated Framework for Soybean Rust Monitoring

The American Soybean Association (ASA) applauds the USDA for providing funding for soybean rust surveillance and monitoring. The framework will allow for reporting where soybean rust has been confirmed, as well as predicting where it is likely to spread during the 2005 growing season. The cooperating USDA agencies include the Animal and Plant Health Inspection Service (APHIS), the Agricultural Research Service (ARS) and CSREES.

"The goal of the framework is to provide stakeholders with effective decision support for managing soybean rust during the 2005 growing season," says ASA President Neal Bredehoeft, a soybean producer from Alma, MO. "Authorization of a federal/state/industry coordinated framework has been one of ASA's top priorities since the plan was first announced at a USDA-APHIS-sponsored stakeholders meeting on February 4th, in Indianapolis. ASA commends USDA for its good work on this and other rust-related initiatives."

A report by USDA's Economic Research Service in April 2004, estimated net economic losses ranging from $640 million to $1.3 billion in the first year of the pathogen's establishment in the U.S., and placed annual losses in the ensuing years between $240 million and $2.0 billion, depending on the severity and extent of subsequent outbreaks. The coordinated framework for soybean rust monitoring will help producers minimize economic loss due to soybean rust.

USDA funding will support mobile field monitoring teams to verify soybean rust infections in areas identified based on spore depositions, as indicated by the soybean rust forecast model. The actual data will be important in calibrating and enhancing the soybean rust model's forecasting capabilities for spore deposition and infection. This calibration enables model output to be used with greater confidence by stakeholders.

The disease forecast model supported in the USDA Coordinated Framework (a cooperative project involving North Carolina State University, Pennsylvania State University and CSREES), is available on the web at www.sbrusa.net/. In addition, pertinent links to other resources will be provided. The survey data will be used to define new soybean rust source areas for the beginning of each day's model forecast run. The USDA model will predict spore deposition ranging from light to heavy on a logarithmic scale. In the days following deposition, the model will track infection severity based on a weather-driven epidemiological model.

"This system identifies for producers the locations where soybean rust has been confirmed and will provide prediction models showing where the disease will likely be detected in the near future," Bredehoeft says. "Equipped with this information, each producer will be better able to decide what actions should be taken to protect his or her soybean crop." Fungicide treatments currently represent the only option for containing soybean rust by lessening the risk for infection by spores. Fungicide use in other countries has been effective in keeping the impact of soybean rust below the economic threshold of yield loss. Working closely with USDA and the Environmental Protection Agency, ASA helped gain approval for eight fungicides submitted through the Section 18 emergency registration process. Two other chemicals already had full registration. Because more than one manufacturer produces some fungicides, more than a dozen different fungicides are available for the 2005 growing season. "As a member of the Coordinated Framework Steering Committee, ASA will continue to work with all stakeholders to provide the best possible information to U.S. soybean producers," Bredehoeft says. "Now, ASA's next challenge is to obtain federal appropriations for research projects leading to the development of rust-resistant or rust-tolerant varieties of soybeans."

For more information: www.usda.gov/soybeanrust/

Child Development Center Becomes Nation's First "IPM STAR"

A child development center that has been pesticide-free for over twelve years was recently awarded the first IPM STAR certification for a childcare facility in the nation. The Carlisle Barracks Moore Child Development Center (CDC), serving 134 children, is a model for this common sense pest management.

Moore CDC, located at the Army War College in Carlisle, Pa., was awarded the IPM STAR from the IPM Institute of North America. According to Dr. Thomas Green, president of the institute, IPM STAR certification is a rigorous process that includes an on-site inspection by an independent professional trained in IPM. "We're very pleased that Moore CDC has undertaken this process, both to improve their IPM program and increase the visibility of IPM as a great alternative for anyone who has to deal with pest problems," states Dr. Green.

While the branches of the Defense Department are not required to adhere to the same state laws that require all public schools to adopt an IPM program, the Army's IPM in Schools and CDCs initiative is putting similar measures in place for soldiers' family members. "IPM has been a foundation of Defense Department and Army pest management policies and practices for more than 20 years. The Defense Department's IPM principles, including planning and professional oversight, high training standards, record keeping and reporting, and targeted pesticide applications when needed, serve as the foundation of the Army school and CDC initiative," Bailey explains.

How do you improve a program that has already reduced pest problems and pesticide use to a non-issue? "We work hard to identify opportunities to move up a notch or two," reports Dr. Green. "In this case, we consulted with the Pennsylvania IPM Program and made some suggestions related to new school IPM provisions of Pennsylvania law. We also focused on communications with service providers," he continues. "Clear, consistent and frequent communications are key to successful relationships with pest control and landscape service providers. In this case, the Army has two key documents that guide contractor activities, including the IPM Plan for the CDC and a 'Performance Work Statement.' We looked these over carefully and made suggestions to clarify the CDC's policies and improve communication."

The first-of-its-kind IPM certification program was developed with funding from the CSREES IPM Program, the US Environmental Protection Agency and the National Foundation for IPM Education and is available for professionals, organizations, products and services. Dr. Green says they have expanded the program to allow cooperative extension and other local experts to complete the required on-site inspection and reports. The program will continue to offer certification to child development centers, schools and pest control operators, and may add landscape service professionals, hospitals, and other public agencies to the process. To find out more about the program, visit www.ipminstitute.org/ ipmstar.htm.

The Pennsylvania IPM (PA IPM) program is a collaboration between Penn State University and the Pennsylvania Department of Agriculture aimed at promoting IPM in both agricultural and nonagricultural situations. The PA IPM program's Web site at paipm.cas.psu.edu contains a wealth of information and resources for schools and child development centers adopting IPM programs. By clicking on the "Schools" link, visitors also can download "IPM for Pennsylvania Schools, A How-To Manual." The link also leads to information about the school IPM effort in Pennsylvania and to educational materials from across the country.

For more information: about the program, (814) 865-2839 **Web access:** paipm.cas.psu.edu

For more information: about The Moore CDC's program, contact Keith Bailey by e-mail at Keith.edward.Bailey@us.army.mil, (717) 245-3612.

FUNDING IMPACTS AND OPPORTUNITIES

Applying for Grants at GRANTS.GOV

Grants.gov is the site to find and apply for more than $360 billion in competitive Federal grants across all 26 Federal Grant making agencies. Currently there are more than 2,050 active grant opportunities posted on the site spanning 20+ diverse grant categories ranging from Agriculture to Technology. Over 70 active electronic grant application packages are available on Grants.gov to apply today from Federal agencies, including the Departments of Agriculture, Commerce, Education, and Health and Human Services, the Environmental Protection Agency, the Social Security Administration, and the National Endowments for the Arts and Humanities. Through Grants.gov, the grant community has online access to grant application packages to find and meet the nation's most essential public needs, including an Education grant to reduce alcohol abuse, a Health and Human Services state planning grant, and a USDA scientific cooperation research program.

Grants.gov also provides the ability to download a grant application package and then view and complete it offline giving you the flexibility to complete grant applications when and where you want. It also enables you to easily route it through your organization for review, to complete various components, just like any other email attachment. When the application is complete and ready for submission, you can connect to the Internet and simply click the submit button.

Grants.gov resources on the web

- Grants.gov checklists for Organizations, Individuals, Institutions, etc. – www.grants.gov/RegistrationChecklist
- Other useful links, including foundation resources, funding resources, grants management resources, and more: www.grants.gov/RelatedLinks

IMPACTS

New IPM Grants Awarded in the Northeast

The CSREES sponsored Northeastern Integrated Pest Management Center recently awarded 20 grants through both the Northeast Regional IPM Competitive Grants Program and the IPM Partnership Grants Program, totaling $1 million. Both programs focus on addressing real-world IPM challenges. The Regional IPM Grants promote science-based, safe, and effective IPM strategies through a wide range of research and extension approaches. New projects awarded through this program are as follows:

- Site-specific Management of Resistance in the Control of Apple Scab (Koeller, Cornell Univ.)
- Leveraging Biologicals into the Turfscape: Combining Controls and Exploiting Synergisms for White Grub Management (Peck, Cornell Univ.)
- IPM in and around the Home: Northeast Guidelines (Hoffmann, Cornell Univ.)
- Promoting IPM Implementation in Greenhouses (Skinner, Univ. of Vermont)
- Field Testing of Resistant Tomato Lines to Control Late Blight and Early Blight (Mutschler, Cornell Univ.)
- Perimeter Trap Cropping in Butternut Squash: A Systems Approach (Adler, Univ. of Massachusetts)
- Long-term Evaluation and Improvement of Golf Turf Management Systems with Reduced Chemical Inputs (Grant, Cornell Univ.)

The IPM Partnership Grants Program addresses regional IPM priorities and extends the Center's information network. Recently funded projects for this program are as follows:

- *State Network Projects:* 6 projects cover 11 northeastern states
- *Tactics Surveys, Crop Profiles, and Pest Management Strategic Plans:* residential turf pesticide applicators; peppers; school IPM programs; sweet corn; strawberries; high bush blueberries; bees
- *IPM Working Groups:* Community IPM; Vegetables; Livestock/field crops
- *IPM Working Group Priorities:* Inadequate Control of Trichoderma Green Mold on Mushrooms (Royce, Pennsylvania State Univ.); Vegetable IPM in the Northeast (Hazzard, Univ. of Massachusetts)
- *Publications:* Increasing IPM Implementation through Identifying Stakeholder Needs and Increasing Awareness (Skinner, Univ. of Vermont)
- *Critical and Emerging Issues:* An Observational Early Warning System for Detecting Soybean Rust Incursions into the Northeast Region (DeWolf, Pennsylvania State Univ.)

More details about these projects are available on the NortheastIPM.org website. We expect to release the Request for Applications for both of our 2006 grants programs this September.

For more information: Elizabeth Myers, ebm24@cornell.edu, (315) 251-0713

Pennsylvania IPM Program's 1-800 Number Kicks off Twelfth Season

Christmas tree growers, agricultural crop producers, turfgrass managers, fruit growers and homeowners from across Pennsylvania can find the latest pest and pest management information by dialing the Pennsylvania IPM Program's 1-800 PENN IPM (736-6476) toll-free hotline. Callers to the hotline can receive information such as recent phermone trap capture counts for their region, up-to-date disease development information, as well as tips on pest management tactics from the Pennsylvania IPM Program. IPM aims to manage pests, such as insects, diseases, weeds and animals, by combining physical, biological and chemical tactics that are safe, profitable and environmentally compatible.

Information on such crops as Christmas trees, sweet corn, potatoes, apples, tomatoes, ornamental plants as well as information about fly control and animal IPM is included on the hotline. Information on scheduled pesticide applicator training sessions is also available. Messages on the hotline are updated frequently during the growing season, sometimes as often as daily during critical management periods, and are available 24 hours a day, seven days a week. Pest management specialists from the Pennsylvania Department of Agriculture, Penn State's Departments of Entomology and Plant Pathology and Penn State Cooperative Extension contribute their time and expertise to keep the information current and useful. The system also includes a "fax-on-demand" function. When available, the caller simply requests a fax and indicates his or her fax number. The system then will send a fax containing in-depth information about the crop, graphs of insect activity over time and other data. The Pennsylvania IPM program, which is supported by the CSREES IPM Program, is a collaboration between the Pennsylvania State University and the Pennsylvania Department of Agriculture aimed at promoting integrated pest management in both agricultural and nonagricultural situations. To view archived news releases, visit paipm.cas.psu.edu/newsrelease.html.

For more information: contact the program at (814) 865-2839 **Web access:** paipm.cas.psu.edu

University of California Joins Alliance to Protect Popular Flower

The University of California Statewide Integrated Pest Management Program (IPM) has teamed up with growers, ornamental plant organizations and industry personnel to develop IPM strategies to protect a $300 million cut flower industry in California. California is the country's largest producer of gerbera flowers, one of the most popular ornamental flowers in the world with more than 200 varieties. Gerbera growers often spray pesticides to control pests such as leafminers, whiteflies and thrips. With funding from UC IPM and other organizations in the Gerbera Pest Management Alliance (GPMA), researchers are investigating ways to improve the timing for releasing natural enemies, integrating biological control and using new reduced-risk pesticides to control destructive pests.

A key concern is to determine how many pests are present and the number of pests it takes to impact crop yields so that growers can skip treatments when they are unnecessary. Four 10,000-square-foot sites in Encinitas, Carpinteria, Ventura, and Watsonville are being used to develop standardized sampling methods and thresholds for gerberas. Without knowing how different numbers of pests affect a crop, growers don't know the best time to spray pesticides or to release natural enemies, which can result either in crop losses or excessive control costs. With science-based information on pest pressure and risk gathered in these experiments, growers will have a better understanding of when to apply natural enemies or pesticides so they can obtain the best possible pest control and reduce pesticide use. Researchers studied climatic factors, such as temperature and humidity and non-climatic variables, such as variety and leaf age, to help determine optimal pest management practices. When complete, this study will serve as a model system for cut and potted floriculture crops statewide. "The Gerbera Pest Management Alliance has been designed to advance integrated pest management and biological control strategies for gerbera growers wherever they may fall on the pest management continuum," says UC Davis Entomologist Michael Parrella, who is one of the investigators of the project. "We have some growers who are actively using biological control, while others are just starting. This program, based on developing solid sampling strategies, will offer all growers the opportunity to advance their integrated pest management. We meet three times a year at a cooperating grower's packing shed, review progress of the GPMA, share experiences, and tour the gerbera production area."

Other GPMA members are the California Cut Flower Commission, the California Department of Pesticide Regulation, county advisors, allied industries and manufacturers of reduced-risk pesticides. The California Cut Flower Commission, the Hansen Trust, USDA (via the National Floriculture & Nursery Research Initiative), and the American Floral Endowment also provided funding.

For more information on UC IPM: www.ipm.ucdavis.edu/

OPPORTUNITIES

Plant Production and Protection

CSREES announces the availability of and requests applications for the Small Business Innovation Research: Plant Production and Protection grant. In FY 2006, CSREES anticipates that approximately $19,400,000 will be available for support of this program. Completed applications must be received by close of business on **September 1, 2005**.
For more information: William Goldner at wgoldner@csrees.usda.gov
Web access: www.csrees.usda.gov/fo/plantproductionprotectionsbir.html

Higher Education Multicultural Scholars Programs - Special Experiential Learning Grants

CSREES announces the availability of grant funds and requests applications for the Higher Education Multicultural Scholars Grants Program – Special Experiential Learning Grants (SEL). In FY 2006, CSREES anticipates that approximately $90,000 will be available for support of this program. Completed applications must be received by close of business on **September 30, 2005**.
For more information: Audrey Trotman at atrotman@csrees.usda.gov
Web access: www.csrees.usda.gov/fo/multiculturalscholarsexperientiallearninghep.html

Regional Integrated Pest Management Competitive Grants Program – *North Central Region*

CSREES requests applications for the Regional Integrated Pest Management Competitive Grants Program. In FY 2006, CSREES anticipates that approximately $855,000 will be available for support of this program. Completed applications must be received by close of business on **October 21, 2005**.
For more information: Mike Fitzner at mfitzner@csrees.usda.gov
Web access: www.csrees.usda.gov/fo/integratedpestmgtnorthcentral.html

Interagency Microbial Observatories Program

CSREES requests applications for the National Research Initiative: Interagency Microbial Observatories Program. In FY 2006, CSREES anticipates that approximately $4,500,000 will be available for support of this program. Completed applications must be received by close of business on **October 27, 2005**.
For more information: John L. Sherwood at jsherwood@csrees.usda.gov
Web access: www.csrees.usda.gov/fo/microbialgenomesequencingnri.html

Regional Integrated Pest Management Competitive Grants Program - *Northeast Region*

CSREES requests applications for the Regional Integrated Pest Management Competitive Grants Program. In FY 2006, CSREES anticipates that approximately $610,000 will be available for support of this program. Completed applications must be received by close of business on **November 18, 2005**.
For more information: Mike Fitzner at mfitzner@csrees.usda.gov
Web access: www.csrees.usda.gov/fo/integratedpestmgtnortheast.html

CSREES PROGRAM HIGHLIGHTS

The Western Region Has A New Extension Director

Lyla Houglum was recently named Executive Director for the Western Region Extension Directors (WEDA). Beginning July 1, Lyla assumed this new part-time position. It includes being the primary liaison between Washington DC and the Extension Directors in the West, mentoring new Extension Directors and assisting with coordination of regional multi-state projects. She also has been asked to form a national consortium of states to support the *Smart Gardening* public television show that is produced by Oregon State University and Chambers Communications. She's currently in the process of working with Anita Azarenko and Jan McNeilan to develop an eXtension funding proposal to assist with this effort. Lyla also serves on a number of national committees and national review teams, is invited to speak at various national and international conferences and does a lot of consulting with faculty and administrators across campus about various issues related to the scholarship of outreach and connecting colleges with extension in new ways.
Web access: extension.oregonstate.edu/index.php

Pink Hibiscus Mealybug Training Teleconference

In 2004, nursery stock infested with pink hibiscus mealybug (PHM) was accidentally shipped to 36 states in the U.S., 11 of which may be climatically suitable for the establishment of pink hibiscus mealybug. Other states that are not climatically suitable may support pink hibiscus mealybug populations in greenhouse facilities.

To address the distribution of the infested plant materials, CSREES, APHIS, the Plant Diagnostic Network and the IPM Centers sponsored two training teleconferences. The first training teleconference, held on June 1, 2005, was designed for broad audiences including master gardeners, regulatory personnel, extension and land grant personnel, commercial landscape and nursery personnel and the general public. The second training teleconference was held on June 15, 2005, and was designed for regulatory, extension and land grant personnel to assist with survey efforts.

Both teleconferences were rated very successful by participants who gained knowledge on identifying, scouting and IPM strategies for PHM. Twenty states participated in the training with a total of 69 sites and 106 participants. Participating states include: Alabama, California, Colorado, Florida, Hawaii, Louisiana, Michigan, Missouri, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia.

Presentations were made by Lance Osborne, University of Florida, addressing the biology and life cycle of PHM, and Eduardo Varona, USDA Animal and Plant Health Inspection Service (APHIS) presented the session designed to assist plant regulatory officials conduct surveys to detect the presence of PHM in their states.

Lance Osborne and Karolynne Griffiths, APHIS, worked with Catharine Mannion, Andrea Chavez and Frank Burgos from the University of Florida and Paul Hornby, Amy Roda and Dale Meyerdirk from APHIS to develop the training materials that were presented during the sessions. Power Point presentations from the sessions are available for download from the web site at www.ncipmc.org/phmb/.

For more information: Susan Ratcliffe, sratclif@uiuc.edu

More information from APHIS on PHM: www.aphis.usda.gov/ppq/ep/emerging_pests/phmb/index.html

Seeds and Breeds Conference

The purpose of the Seeds and Breeds Conference being held September 11-14, 2005 in Ames, Iowa, will be to continue the discussion and coalition building to reinvigorate public plant and animal breeding that began with the 2003 Seeds and Breeds Forum held in Washington DC (a written record of the proceedings is available at www.rafiusa.org/pubs/ listed as Seeds and Breeds PDF). Plant and animal breeding are technologies that harness the creative power of selection. The results of this selection process are powerful, precise and predictable. While breeding has produced clear public benefits, the continuation of this discipline is by no means assured. The paradigm for crop and animal improvement has shifted from breeding (selection) to engineering. The importance of plant and animal breeding needs to be reestablished, and the intellectual basis of breeding must be reinvigorated. This gathering will create a forum for discussion, analysis and planning to progress toward shifting the current paradigm Unlike the 2003 forum, this gathering will be structured as a conference with multiple sessions to dig deeper into the very practical challenges and opportunities we face in building a public plant and animal breeding agenda to meet the needs of farmers and consumers for the 21st century. This conference will allow participants to learn very practical and hands-on information about exciting on-the-ground farmer participatory breeding initiatives that are working from both the US and Europe. We will also identify the resources, infrastructure and delivery systems necessary to reinvigorate public plant and animal breeding to meet the challenges of a more healthy and sustainable agriculture. Sessions will include topics on federally funded programs and coalition building to affect change in existing programs, with a special focus on the upcoming 2008 Farm Bill. The conference will ideally result in a larger community of engaged farmers, breeders and public interest and policy specialists to affect change; as well as create new breeding programs and to learn how to expand and participate in existing programs. This conference is sponsored by the Rural Advancement Foundation International (RAFI) and Iowa State University. The CSREES liaison for this event is Ann Marie Thro, she can be reached at athro@csrees.usda.gov.

Web access: www.agron.iastate.edu/seedsandbreeds

Multi-state Coordinating Committee on Plant Breeding

The Multi-state Coordinating Committee (CC) on Plant Breeding will serve as a source of information and leadership regarding issues, problems and opportunities of long-term strategic importance to the U.S. national plant breeding effort. Experiment Station directors and Agricultural Research Service (ARS) location leaders have been invited to designate representatives to the CC. Because the private sector is a significant component of the U.S. national plant breeding investment, private sector participation in the Plant Breeding CC is encouraged.

The designation process has just begun and most entities have not yet named a representative. Plant breeders interested in serving as an official rep may wish to contact their department heads and/or directors now. The administrative advisor for the CC is Mark Hussey of Texas A&M. The CSREES representative is Ann Marie Thro. Although CCs have only one official rep per entity, there is no limit on the number of active participants. Any interested plant breeder or "friend of plant breeding" may contact Ann Marie Thro to be put on the contacts list.

Officers will be elected in early 2006, nominations and self-nominations are welcome. Most activity in the start-up year will be via email. Initial activity plans will be discussed at the 2005 annual meetings of the American Society of Horticultural Science (ASHS), Wed, July 20, 2005; the Crop Science Society of America, November 10, 2005, and the Plant and Animal Genomics (PAG), January 18, 2006.

For more information: Ann Marie Thro, athro@csrees.usda.gov, (202) 401-6702

IR-4 Crop Grouping Project

The IR-4 Project, which is funded by CSREES and ARS, has been instrumental in establishing or expanding crop grouping of specialty crops. These groupings allow for efficiencies by collecting data on a few crops that will support registrations on many more crops within that crop group. In 2002, IR-4 began a project to review and expand the crop groups. In 2004, four crop group updates were initiated. Bulb vegetables were the first group update completed. This proposed new crop group consists of 25 commodities versus seven in the existing crop group, a more than three-fold increase in the number of crops. Updates for cereal grains and grasses, tropical fruits and small fruit crops are also well underway. Several electronic databases were developed including Codex and EPA crop group tables, crop vocabulary, US and Canadian crop distribution maps and a dry matter database. In July of 2004, the IR-4 / EPA Crop Grouping Working Group provided training classes for the EPA / OPP Risk Assessment Training and Certification Program.

In 2004, IR-4 established an International Consulting Committee on Crop Grouping. The original purpose of the committee is to assist the IR-4/EPA Crop Grouping Working Group in clarifying data needs and providing crop information proposals that request a significant expansion of the existing crop groups.

The 130 member committee represents 13 countries with some members representing the European Commission and CODEX Committee on Pesticide Residue. The ultimate goal of this project is to establish harmonized crop groupings that are recognized by all regulatory agencies.

For more information: Hong Chen, hchen@aesop.rutgers.edu, (732) 932-9575 ext 627
Web access: www.ir4.rutgers.edu

Asian Soybean Rust Fast Track System

The Iowa Soybean Rust Team uses the Fast Track System to speed up the identification of Asian soybean rust. Samples submitted using the system are diagnosed at no cost. To participate in the fast track system, a grower or consultant must contact a first detector. More than 400 first detectors throughout Iowa have been trained to identify the disease and are listed on the Iowa Soybean Rust Team Web site at www.soybeanrust.info. First detectors who receive suspect samples will forward them to a triage person. Forty Iowa State extension specialists have been trained as triage members to identify soybean rust. Triage members will send suspect samples to the Iowa State University Plant Disease Clinic. The first two soybean rust samples collected in Iowa are required to be sent to the U.S. Department of Agriculture National Plant Germplasm and Biotechnology Laboratory in Beltsville, Md. for confirmation. Alison Robertson, Iowa State plant pathologist, has been conducting training sessions throughout the state on the identification of soybean rust. She warns that there are many diseases that look similar to soybean rust. "It can be difficult to diagnose this disease. That's why using the fast track system can help growers with identification of soybean rust," Robertson said. The Iowa Soybean Rust Team includes representatives from the Iowa State University, Iowa Soybean Association and Iowa Soybean Promotion Board, the Iowa Department of Agriculture and Land Stewardship and the USDA.

Executive Summary of the Soybean Rust Scenario Workshop

On May 3, 2005, the American Soybean Association, USDA, United Soybean Board and the North Central Soybean Research Program sponsored the Soybean Rust Scenario Workshop, which was organized by Dr. Kitty Cardwell of CSREES. Forty soybean rust extension specialists, certified crop advisors, insurance industry representatives, soybean rust researchers, USDA administrators, and USB/ASA sponsors met in St Louis, MO, to evaluate the functionality of the USDA Soybean Rust Information Website as an e-Extension platform for providing growers with information and recommendations for managing soybean rust. Participants were divided into small groups and charged with the task of constructing recommendations for growers in specific states using a set of website tools developed for extension specialists and hypothetical scenarios of soybean rust spread throughout the U.S. There were three important outcomes of this training activity. The first resulted from the realization that a more flexible set of communication tools were needed for the USDA website because the spatial units (e.g., counties, cropping districts…) that extension specialists traditionally use to provide guidelines to growers vary greatly among states. The second outcome was a reaffirmation that the learning curve for synthesizing new information into guidelines for growers is steep, and thus extension specialists need access to scenario training experiences whenever new useful information technologies become available. Finally, Risk Management Agency (RMA) advisors and crop insurance industry representatives were very appreciative of the training experience and committed to collaborating with extension to assist farmers with providing documentation of their good farming practices to manage soybean rust. **For more information:** Kitty Cardwell, kcardwell@csrees.usda.gov

USDA Informs Farmers About Soybean Rust, Crop Insurance

USDA's Risk Management Agency (RMA) encourages insured producers concerns about the impact of Asian soybean rust to use good farming practices by seeking and following recommendations of agricultural experts to control soybean rust. Further, RMA recommends the insured producer document the advice received and actions taken to combat this disease.

Under the terms of the Common Crop Insurance Policy, a practice is considered a good farming practice if agricultural experts agree that the production method used will allow the crop to make normal progress toward maturity and produce at least the yield used to determine the production guarantee. As with all crop insurance policies and plans of insurance, farmers must use good farming practices. This insures that in the event of any naturally occurring disease outbreaks, such as soybean rust, producers will be eligible for an indemnity based on the full amount of the loss. If good farming practices are not followed, production attributed to the failure to follow good farming practices is assessed, resulting in a reduction in the indemnity.

Insured producers should follow developments as to the identification and spread of Asian soybean rust disease and continue to stay informed and updated concerning appropriate treatments that may apply to their situation. Producers can find the latest information on the spread of Asian soybean rust from local experts and from USDA's website at www.usda.gov/soybeanrust.

Information about Asian soybean rust control measures may be obtained from local chemical dealers, crop consultants, and plant pathologists at state departments of agriculture and universities. For more information regarding good farming practices and crop insurance protection against Asian soybean rust, please see the crop policies area on the RMA website at www.rma.usda.gov.

Specialty Crops Regulatory Initiative

Recommendations from a workshop, "Public Research and the Regulatory Review of Small-Market (Specialty) Biotechnology-Derived Crops," held November 8-9, 2004, resulted in a new Specialty Crops Regulatory Initiative. Over 125 federal, academic and private-sector leaders at the workshop discussed how the public research sector, regulatory agencies and the private sector could collaborate to facilitate the regulatory review of specialty (small market) biotechnology-derived crops. The workshop was organized through the leadership and planning of several USDA agencies – CSREES and the Animal Plant Health Inspection Service (APHIS), along with Langston University and the National Center for Food and Agricultural Policy (NCFAP). NCFAP is a Washington-based non-profit policy research organization. CSREES National Program Leaders Ann Marie Thro (Plant Breeding and Genomics); William R. Goldner (Small Business Innovation Research); Eldon Ortman (IPM); Edward Kaleikau (Plant Genome); and Daniel Jones (Biotechnology), along with representatives from NCFAP, Langston University, ARS, and APHIS, served on the Steering Committee. Ann Marie Thro and William Goldner of CSREES served as Committee Co-Chairs.

For more information: Ann Marie Thro, athro@csrees.usda.gov or William Goldner, wgoldner@csrees.usda.gov

UPCOMING AND RECENT MEETINGS

2005

September

- 2nd International Symposium on Biological Control of Arthropods, Davos, Switzerland, September 12-16, 2005. www.cabi-bioscience.ch/ISBCA-DAVOS-2005/
- 2005 USDA/IR-4 Food Use Workshop, San Diego, CA, September 13-15, 2005. www.ir4.rutgers.edu
- IFOAM World Conference, Adelaide, Australia, September 19-23, 2005. www.nasaa.com.au/ifoam/
- 2005 International Plug & Cutting Conference, Dearborn, MI, September 25-28, 2005. www.ballpublishing.com/conferences
- IV Latin-American Symposium on Transgenic Products, Gramado - RS, Brazil, September 26-29, 2005. www.anbio.org.br/congresso/congresso2005.htm

October

- International Plant Propagators Society (IPPS) Eastern Region, Atlantic City, NJ, October 3-6, 2005. www.ipps.org/EasternNA/meeting.htm
- American Society of Landscape Architects, Fort Lauderdale, FL, October 7-11, 2005. www.asla.org
- ISHS International Symposium on Biotechnology of Temperate Fruit Crops and Tropical Species Daytona Beach, Florida, October 10-14, 2005. http://conference.ifas.ufl.edu/ISHScrops/english.html
- Plant Genetics 2005, Mechanisms of Genetic Variation, Snowbird, UT, October 12–16, 2005. www.aspb.org/meetings/pg-2005/
- Medicago Genomic Function and Response to Biotic Stress, Ardmore, OK, October 25-27, 2005. www.noble.org/events/medicago2005/
- Biotechnology of *Bacillus thuringiensis* and its Environmental Impact 6th Pacific Rim Conference, Victoria, British Columbia, Canada, October 30 to November 3, 2005. www.biocontrol.ca/prc/pacrimconf.html

November

- Labeling Genetically Modified Food, An Interdisciplinary Conference at the University of Missouri-Columbia, Columbia, MO, November 4-5, 2005. www.missouri.edu/~weirichp/food_conference/food_conference.htm
- ASA-CSSA-SSSA International Annual Meeting, Salt Lake City, UT, November 6-10, 2005. www.asa-cssa-sssa.org/meetings/acs/
- Independent Plant Breeder's Conference, Fort Lauderdale, FL, November 18-20, 2005. http://conference.ifas.ufl.edu/IPBC
- 3rd International Conference on IPM Role in Integrated Crop Management and Impacts on Environment and Agricultural Products, Giza, Egypt, November 26-29, 2005. www.arabscientist.org/dl/anouncement.pdf

2006

- Southern Region American Society for Horticultural Science. Mobile, AL, **February** 3-7, 2006. www/ashs.org
- Fifth National IPM Symposium "Delivering on a Promise", St. Louis, MO, **April** 4-6, 2006. www.ipmcenters.org/IPMSymposiumV/
- 6th International Carnivorous Plant Society Conference, Frostburg, MD, **June** 1 - 5, 2006. www.frostburg.edu/6thICPS/index.htm
- OFA - Association of Floriculture Professionals 2005 Short Course & Trade Show, Columbus, OH, **July** 8-12, 2006. www.ofa.org
- 90th Annual Meeting of the Potato Association of America and VI International Solanaceae Congress, Madison, WI, **July** 23 - 27, 2006. www.hort.wisc.edu/PAA-Solanaceae/
- ASHS Annual Conference, New Orleans, LA, **July** 27–30, 2006. www.ashs.org/conferences.html
- American Society of Plant Biologists, Plant Biology 2006 Conference, Boston, MA, **August** 5-9, 2006. www.aspb.org/meetings/pb-2006/pb06flyer.pdf
- 27th International Horticultural Congress. Seoul, South Korea, **August** 13–19, 2006. www.ihc2006.org

INSIDE THE BELTWAY

Senate Appropriations Committee Marks-Up FY 2006 Budget Proposal

On Thursday, June 23, 2005, the Senate Appropriations Committee marked-up the FY 2006 agricultural appropriations bill. The Senate mark is $1,181,849,000 for CSREES, an increase of $149,150,000 over the FY 2006 President's Budget proposal of $1,032,699,000 and $6,038,000 over the FY 2005 appropriation of $1,175,811,000 after rescission. (The totals for the FY 2006 President's Budget, the FY 2005 appropriation, and the FY 2006 Senate mark include an estimate of interest earned on the Native American Endowment Fund).

The Senate mark proposes that funding for the Hatch Act, McIntire-Stennis, Animal Health and Smith-Lever 3(b) and(c) formula programs remain at the FY 2005 appropriated levels. An increase of approximately $775,000 over the 2005 appropriated level is provided for both the Evans-Allen and 1890 Extension formula programs. No funding is provided for the State Agricultural Experiment Stations Competitive grants program proposed in the FY 2006 President's Budget.

The National Research Initiative budget increased by $10,448,000 over the FY 2005 appropriation of $170,552.000 to $190,000,000. Report language indicates that, prior to receiving a special research grant award, "the grantee must provide a report to the Committee that describes the specific research objectives for which these funds will be used, methodologies to measure performance and determine when the research objectives will be met, and the expected date of completion." The language further indicates that, if the purpose of the grant is more long-term in nature, the Committee expects the grantee to pursue funds through other authorities.

Section 709 of the General Provisions limits indirect costs charged against competitively awarded research, education, or extension grants to 20 percent of total federal funds provided under each award, except for grants available under the Small Business Innovation and Development Act. The current indirect cost rate is limited to 20 percent.

Section 718 of the General Provisions prohibits the use of funds to carry out the Initiative for Future Agriculture and Food Systems (IFAFS). Funds are available for the purpose of administering and conducting oversight of grants awarded and obligations in prior years. Similar language was included in the FY 2005 appropriation.

Section 727 permits the use of up to 20 percent of the funds appropriated for National Research Initiative to be used to carry out a competitive program under the same terms and conditions as those provided for the Initiative for Future Agriculture and Food Systems. Similar language was included in the FY 2005 appropriation.

CSREES Budget Information:
www.csrees.usda.gov/about/offices/budget.html
FY 2006 President's Budget Proposal:
www.csrees.usda.gov/about/offices/budget/2006_budget_table.pdf
Information on the USDA FY 2006 Budget:
www.usda.gov, then clicking on About USDA, and then clicking on budget information.

William J. Hoffman selected as National Program Leader for Agricultural Homeland Security

William J. Hoffman has been selected as National Program Leader for Agricultural Homeland Security, and will provide leadership for aspects of the CSREES Food and Agricultural Defense Initiative (FADI). Bill has an extensive background in agri-business and has especially strong skills in pesticide usage and handling that will assist us with our homeland security efforts. He has Masters Degrees in both Education and in Business Administration (Penn State) and is a doctoral candidate at George Washington University. Although Bill will continue to reside organizationally in the Plant Systems Section, his work will cut across all three sections of the Plant and Animal Systems Unit and extend to other areas of CSREES as well. He will continue to serve as a resource to both the National Plant Diagnostic Network (NPDN) and the National Animal Health Laboratory Network (NAHLN) and will also become more actively engaged with the Extension Disaster Education Network (EDEN) and other extension activities. Bill will also manage certain grants that are not directly associated with the diagnostic networks. You may reach Bill at whoffman@csrees.usda.gov or (202) 401-1112.

RESOURCES

Soybean Rust Scout Before You Spray Video

The Soybean Rust Scout Before You Spray video is available on line at ncipmc.org/alerts/soybeanrust/index.cfm. The video features Dr. Yorinori, a soybean disease expert from Brazil, and others who discuss step by step how to scout for soybean rust and how to apply fungicides, if necessary. **For more information:** Susan T. Ratcliffe, sratclif@uiuc.edu, (217) 333-9656

Evaluation of Training and IPM for Small Farmers in SC

Material in this bulletin is based upon work supported and funded by CSREES. Research Bulletin No. 75, August 2004 Evaluation of Training and Integrated Pest Management for Small Farmers in South Carolina Authors: Suresh R. Londhe, Ph.D. – Professor of Agribusiness, SC State University, Email: londhe@scsu.edu; Gloria S. McCutcheon, Ph.D. – Professor of Entomology, Clemson University, Email: GMCCTHN@clemson.edu

Plant Management Network

The Plant Management Network (PMN) is a unique cooperative resource for the applied plant sciences. Designed to provide plant science practitioners fast electronic access to proven solutions, the Plant Management Network offers an extensive searchable database comprised of thousands of web-based resource pages from the network's partner universities, companies and associations. In addition, the network's four peer-reviewed citable journals, *Applied Turfgrass Science*, *Crop Management*, *Forage and Grazinglands* and *Plant Health Progress*, provide credible current information in areas important to practitioners, policy makers and the public. It also offers a unique set of other electronic resources, including a Soybean Rust Information Center, Image Database, Plant Science Database, Education & Training Center, B&C Tests, F&N Tests and Commodity Variety Trials. "PMN is truly an innovative resource," said Dick Stuckey, PMN advisory council chair and former executive vice president of the Council for Agricultural Science and Technology (CAST). Stuckey said, "By providing so many tools in a single website, PMN offers a first-stop Internet address for those agricultural practitioners seeking reliable information."

PMN is celebrating its first five years of online publication. Since its inception, PMN has partnered with scientific/professional societies, land-grant universities and agribusiness companies. The American Phytopathological Society, American Society of Agronomy, CAST, Crop Science Society of America and Syngenta Crop Protection were the inaugural partners in 2000. The partners program has grown to include nearly 50 of the most highly respected organizations in agriculture. PMN director, Miles Wimer, said, "The PMN partners program is one-of-a-kind in that it brings together over half of the land-grant colleges of agriculture and many nonprofit organizations and corporations. We hope to also engage international organizations and government agencies."

PMN is a not-for-profit effort that provides science-based solutions in agriculture. It seeks to sustain itself through subscriptions and partnerships in both the public and private sectors.

Web access: www.plantmanagementnetwork.org

DRIFTSIM Software

The first user-friendly computer software for estimating the droplet drift distances for pesticide spray applications has been released by Agricultural Research Service (ARS) and Ohio State University (OSU) agricultural engineers. The OSU Communications and Technology Office is distributing the DRIFTSIM software for a nominal fee. The Microsoft Windows-based software can help farmers and extension service educators minimize pesticide drift by helping them choose equipment, settings and techniques. It also helps manufacturers design pesticide formulations and pesticide spraying equipment to minimize drift potential of their products. **Web access:** ct.excelcomm.com

Penn State Study On Varroa Mites

A paper written by a postdoctoral scholar and a professor in entomology at Penn State University about their study on varroa mites suppressing the immune systems of honey bees was recently published in a prestigious scientific journal. "Impact of an ectoparasite on the immunity and pathology of an invertebrate: Evidence for host immunosuppression and viral amplification," written by Drs. Xiaolang Yang and Diana Cox-Foster, appeared in the "Proceedings of the National Academy of Sciences of the United States of America." one of the world's most-cited multidisciplinary scientific serials. The paper can be found in its entirety at www.pnas.org/cgi/content/abstract/0501860102v1.

Crop Adviser Institute Offers Soybean Rust Module

Iowa State University's Crop Advisor Institute (CAI) is providing outstanding soybean rust training materials, suitable for Certified Crop Advisor recertification. Iowa State offers Continuing Education Credits (CEUs) for the soybean rust module, from the CAI as well as a non-CEU training version. The CAI Web site says the module, Soybean Rust 2005 No. P20033, is a new course that expands their original soybean rust course, module No. P20015. The new module examines Asian soybean rust (*Phakopsora pachyrhizi*), including the disease life cycle; yield losses; scouting; identification; and management strategies. This course contains many photos and interactive graphics to help the learner understand and identify soybean rust. Other courses include soybean aphid, crop-weed interactions, residue management, and many more. The mission of CAI is to provide high quality, interactive, computer-based, learning modules designed for the continuing education of agricultural professionals. This mission is being fulfilled through an Iowa State University partnership between the Iowa State University College of Agriculture and Iowa State University Extension. The CAI **Web access:** www.cai.iastate.edu

CSREES PLANT SCIENCES STAFF DIRECTORY

For more information about our programs, consult our Web site or the appropriate individual listed below:

Name	Discipline and Program Areas	Phone (202)	Email *
Auburn, Jill	Sustainable Agriculture	720-5384	jauburn
Bewick, Tom	Horticulture, Organic Agriculture, Invasive Species, Urban Agriculture	401-3356	tbewick
Bolton, Herb	Entomology, Invasive Species	401-4201	hbolton
Bowers, Michael	Ecology, Conservation Biology, Invasive Species	401-4510	mbowers
Cardwell, Kitty	Plant Pathology, National Plant Diagnostic Network (NPDN)	401-1790	Kcardwell
Cleland, Charles	Plant Physiology, Small Business, Forests & Related Resources	401-6852	ccleland
Fitzner, Mike	*Director-Plant Systems Section,* Extension IPM, Regional IPM Centers	401-4939	mfitzner
Gilbert, Leslie	Horticulture, Entomology (pollinators), Sustainable Agriculture	205-0440	lgilbert
Goldner, William	Small Business, Plant Production and Protection – Biology & Engineering, Industrial Applications, Production Horticulture, Specialty Crops, Plant Breeding, Physiology, Biochemistry	401-1719	wgoldner
Green, James	Horticulture, Nursery & Greenhouse Crop Physiology & Production, Landscape & Turf Maintenance, Home Horticulture, MBT Alternatives	401-6134	jgreen
Hoffman, Bill	Ag Homeland Security & IPM Evaluation	401-1112	whoffman
Jerkins, Diana	Managed Ecosystems, Agroecology	401-6996	djerkins
Jones, Dan	Biochemistry, Microbial Genomics, Biotechnology	401-6854	djones
Jones, Preston	Agronomy, Forage Crops	401-1990	jpjones
Johnson, Monte	Entomology, Toxicology, IR-4, PSEP, PMAP	401-1108	mpjohnson
Kaleikau, Ed	Plant genomics	401-6030	ekaleikau
Kathir, Pushpa	Genomics and Molecular Biology, Plant Biochemistry & Plant Pathology	401-5015	pkathir
Kimble-Day, Kathy	Program Specialist	401-4420	kday
Kopp, Dennis	Entomology	690-0745	dkopp
Kotcon, Jim	Organic Agriculture (IPA)	401-4879	jkotcon
Lichens-Park, Ann	Plant Pathology, Biology of Plant Microbe Assn., Microbial Gene Sequencing	401-6466	apark
Lin, Liang-Shiou	Plant Genetic Mechanisms, Plant Growth & Development	401-5042	Llin
McLean, Gail	Plant Responses to the Environment, Plant Biochemistry, Bioinformatics	401-6060	gmclean
Meyer, Rick	Entomology, CAR, Critical Issues	401-4891	hmeyer
Nowierski, Bob	Entomology, Bio-based IPM, RAMP, Invasive Species, Applied Ecology	401-4900	rnowierski
Ortman, Eldon	Shared Faculty, IPM	401-5804	eortman
Poth, Mark	Director, National Research Initiative	401-5244	mpoth
Parochetti, Jim	Weed Science, Aquatic Weed Management	401-4354	jparochetti
Purcell-Miramontes, Mary	Entomology, Applied Ecology, Arthropods & Nematode Programs in NRI	401-5114	mpurcell
Rhodes, Amy	Program Specialist, Communications, Outreach	401-6195	arhodes
Sheely, Deb	Director, Competitive Integrated Programs	401-1624	dsheely
Thro, Ann Marie	Plant Breeding, Plant Genetics, Genomics, Biotechnology	401-6702	athro

*Email addresses end as follows " **@csrees.usda.gov** " (example: arhodes@csrees.usda.gov)

<u>Express Mail</u>
USDA/CSREES/PAS
800 9th Street S.W.
Washington, DC 20024

CSREES Plant Science Websites
Plant & Animal Systems Unit: www.csrees.usda.gov/about/offices/pas.html
Pest Management Program Index: www.csrees.usda.gov/nea/pest/pest.html